c.) Amendments to the Claims.

Please cancel claims 6-10, 12-19 and 25-28 without prejudice or disclaimer of the subject matter thereof. Claims 1-5, 20-24 and 31-32 had been previously canceled.

Please amend claims 11 and 30 and add new claims 37-47, also without prejudice or disclaimer of the subject matter thereof, as follows:

Claims 1-10. (canceled).

Claim 11. (currently amended) A method for detecting 10,000 cfu/ml or less of microorganisms comprising:

incubating the microorganisms for an incubation period of less than eight hours with a nutrient medium containing a predetermined amount of a viability substrate, wherein metabolism of said viability substrate by the microorganisms produces a viability marker;

digesting the microorganisms;

incubating the digested microorganisms with a primary antibody specific for the viability marker;

conjugating the primary antibody to a reporter molecule to form a reporter-primary antibody complex;

detecting reporter molecules that form reporter-primary antibody complexes; and

determining the amount of microorganisms from the reporter-primary antibody complexes detected, wherein the microorganisms are bacteria ~~and the method is performed in less than eight hours~~.

Claims 12-28. (canceled).

Claim 29. (previously presented) The method of claim 11, wherein the microorganisms determined from the reporter-primary antibody complexes detected comprise 1,000 cfu/mL or less.

Claim 30. (currently amended) The method of claim 11, ~~which takes~~ wherein the incubation period is less than two hours.

Claim 31-32. (canceled).

Claim 33. (previously presented) The method of claim 11 further comprising the step of trapping the actively respiring microorganisms on a solid filtration membrane.

Claim 34. (previously presented) The method of claim 11 wherein the reporter molecule comprises an enzyme, a bioluminescent protein, a radioisotope, a chemiluminescent dye, a

visible dye, a latex particle, a magnetic particle or a fluorescent dye.

Claim 35. (previously presented) The method of claim 11 wherein the microorganisms are obtained from a clinical sample, a food sample, a cosmetic sample, a pharmaceutical sample, an industrial sample, an environmental sample, a blood sample, a tissue sample, a tissue homogenate sample or a bodily fluid sample.

Claim 36. (previously presented) The method of claim 11 wherein the microorganisms comprises a single species of microorganism or a mixed population of microorganisms.

Claim 37. (new) A method for detecting 1000 cfu/ml or less of microorganisms comprising:

incubating the microorganisms for an incubation period of less than two hours with a nutrient medium containing a predetermined amount of a viability substrate, wherein metabolism of said viability substrate by the microorganisms produces a viability marker;

digesting the microorganisms;

incubating the digested microorganisms with a primary antibody specific for the viability marker;

conjugating the primary antibody to a reporter molecule to form a reporter-primary antibody complex;

detecting reporter molecules that form reporter-primary antibody complexes; and

determining the amount of microorganisms from the reporter-primary antibody complexes detected, wherein the microorganisms are bacteria.

Claim 38. (new) The method of claim 37 further comprising the step of trapping the actively respiring microorganisms on a solid filtration membrane.

Claim 39. (new) The method of claim 37 wherein the reporter molecule comprises an enzyme, a bioluminescent protein, a radioisotope, a chemiluminescent dye, a visible dye, a latex particle, a magnetic particle or a fluorescent dye.

Claim 40. (new) The method of claim 37 wherein the microorganisms are obtained from a clinical sample, a food sample, a cosmetic sample, a pharmaceutical sample, an industrial sample, an environmental sample, a blood sample, a tissue sample, a tissue homogenate sample or a bodily fluid sample.

Claim 41. (new) The method of claim 37 wherein the microorganisms comprises a single species of microorganism or a mixed population of microorganisms.

Claim 42. (new) A method for detecting 10,000 cfu/ml or less of microorganisms comprising:

incubating the microorganisms for an incubation period of less than thirty minutes with a nutrient medium containing a predetermined amount of a viability substrate, wherein metabolism of said viability substrate by the microorganisms produces a viability marker;

digesting the microorganisms;

incubating the digested microorganisms with a primary antibody specific for the viability marker;

conjugating the primary antibody to a reporter molecule to form a reporter-primary antibody complex;

detecting reporter molecules that form reporter-primary antibody complexes; and

determining the amount of microorganisms from the reporter-primary antibody complexes detected, wherein the microorganisms are bacteria.

Claim 43. (new) The method of claim 42, wherein the microorganisms determined from the reporter-primary antibody complexes detected comprise 1,000 cfu/mL or less.

Claim 44. (new) The method of claim 42 further comprising the step of trapping the actively respiring microorganisms on a solid filtration membrane.

Claim 45. (new) The method of claim 42 wherein the reporter molecule comprises an enzyme, a bioluminescent protein, a radioisotope, a chemiluminescent dye, a visible dye, a latex particle, a magnetic particle or a fluorescent dye.

Claim 46. (new) The method of claim 42 wherein the microorganisms are obtained from a clinical sample, a food sample, a cosmetic sample, a pharmaceutical sample, an industrial sample, an environmental sample, a blood sample, a tissue sample, a tissue homogenate sample or a bodily fluid sample.

Claim 47. (new) The method of claim 42 wherein the microorganisms comprises a single species of microorganism or a mixed population of microorganisms.